

Water-Energy Working Group Agenda
Department of Water Resources/California Energy Commission
Working Group Meeting on the Water-Energy Relationship Study for
the 2005 Integrated Energy Policy Report
Hearing Room A, 9:30 am – 5 pm, Thursday, March 10, 2005

Teleconference dial-in number (toll free): 888-455-0031

Teleconference passcode: MATTHEWS CAL

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| 9:30-9:45 | Opening Remarks/Introductions | Kae Lewis |
| | Study Purpose | Matt Trask |
| | Working Group Logistics | Kae Lewis |
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9:45-Noon | A New Spaghetti Chart: A Graphic Depiction of the Water-Energy Nexus | |
| | Bob Wilkinson, UCSB | |
| | Gary Wolff, Pacific Institute | |
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Noon-1:30 | Lunch | |
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1:30-3:30 | Open Session: Energy Demand in the Water Sector:
Identification of the Most Important Data Gaps/Sources of Information | |
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3:30-4:45 | Open Session: Future Energy Demand in the Water Sector:
Information/Data Needs for the WER Study and Whitepaper
Next Meeting Topics | |
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4:45-5:00 | Closing Remarks | Kae Lewis/Matt Trask |

Schedule:

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| Next Working Group Meeting: | March 24 (approx) |
| IEPR Committee Workshop for Energy-Water Relationship Study: | April 8 |
| Draft Report for Working Group Peer Review: | May 15 (approx) |
| Publication of WER Whitepaper | May 29 |
| IEPR Committee Workshop on WER Whitepaper | Mid-June |
| IEPR Policy Recommendation Hearings | July-September |
| IEPR Publication | October-November |

Questions for March 10 Water-Energy Working Group Meeting

The first meeting of the Working Group formed for the Water-Energy Relationship Study will begin to answer the first three Key Questions listed in the Study Work Plan. These are listed below, along with several sub-questions addressing finer points of the main questions:

1. What are the electricity requirements (both in power demand and in electric energy use) for water storage, statewide or regional conveyance, supply treatment, local delivery, primary end-use, wastewater treatment and disposal?
 - a) How much of this power demand and energy use currently occurs during peak energy use periods (i.e., during hot summer days)? How much of this peak use could be shifted to off-peak times?
 - b) What equipment is currently installed and not generally in use, but may be used in the near future (such as groundwater pumps that would withdraw water from conjunctive use fields during supply emergencies)?
2. What are the effects on electricity supply and/or demand caused by changes in hydrologic and or climatic conditions (i.e., wet years vs. critical dry years)?
 - a) What are the effects on electricity supply or demand in the water sector during warm wet years (i.e., low snowpack, early runoff)?
 - b) What effect will extended drought have on water system energy use?
 - c) What is the realistic worst-case drought situation concerning electricity demand in the water sector? What would happen in each sequential year of an extended drought concerning electricity demand in the water sector?
3. How will California's water development, treatment and use change in the future and how might these changes affect energy demand?
 - a) What new water system equipment will be installed, both to meet growth or other requirements (regulatory, etc.), and to reduce energy bills through efficiency/conservation?
 - b) What is the net effect on water sector electricity demand during extended drought periods? For example, energy use might increase when conjunctive use pumping increases, but may decrease if emergency drought measures are enacted, such as prevention of car washing and landscape watering.
 - c) What are the trends in electrification in the water sector? For example, what is the potential for significant growth in electricity demand from electrification of pumps now powered by stationary diesel engines?
 - d) Will changes in water system regulation, such as pending rule changes related to enforcement of Clean Water Act Section 316 a&b, or any other regulatory action, have a significant near-term (through 2015) effect on energy demand in the water sector?
 - e) What is the realistic potential for new desalination plant operation in California by 2015?

- f) Will water market transactions during the next 10 years (exchanges, changes in assignment of water rights, etc.) have a significant effect on energy demand in the water sector?
- g) What are the trends towards conversion to tertiary treatment of wastewater facilities? What potential increase in electricity demand in the water sector would these conversions create?